

**REMARKS/ARGUMENTS**

**Rejections to the Claims:**

5     **1. 35 USC§ 112 – Claims 1, 18, 29, and 42**

In sections 2 and 3 of the current Office Action, the Examiner rejected claims 1-51 under 35 USC 112, first paragraph, as failing to comply with the enablement requirement.

Specifically, the Examiner stated “[a]s to claims 1, 18, 29 and 42, Specification does not describe how [to] allocate[e] portions of data for transmission through the laser portion  
10     and the radio frequency portion. Specification discloses (page 2, lines 20-22) a node further includes a controller that is configured as a binary switch such that the data is transmitted exclusively through either one of the laser portion and the radio frequency portion but not both (page 11, lines 6-8).”

15     The Applicants respectfully disagree with the Examiner. The Applicants refer to page 9, lines 3-4 of the application, which state “[s]everal specific embodiments of the present invention are provided as guides to understanding of particular applications in which it may be used.” Continuing on page 9, lines 4-7, the specification states “[t]he basic hybrid link will be discussed incorporating, in a first example, a binary switch, which  
20     steps the traffic load from all-radio frequency to all-optical and vice-versa, and in a second example, a gradual stepping mechanism, which steps, incrementally, between an all-radio frequency and an all-optical and vice-versa.” While the Examiner is correct in determining that the specification includes a binary switch, that is only one of many embodiments of the invention disclosed in the specification. Further, Claim 1 claims “a  
25     controller configured ... to allocate portions of the data to be transmitted through the laser portion and the radio frequency portion.” There is nothing in Claim 1 that indicates that the data has to be transmitted simultaneously through the laser portion and the radio frequency portion. Thus, a binary switch is a controller that can allocate portions of the data to be transmitted through the laser portion and the radio frequency portion, in that at  
30     one time the binary switch is set to allocate all of the data to the laser portion, and at a

different time, the binary switch is set to allocate all of the data to the radio frequency portion. Therefore, the binary switch is capable of allocating portions of the data to be transmitted to the laser portion and the radio frequency portion.

5 Further, as stated above, another embodiment includes a gradual stepping mechanism, which allows for allocating portions of data transmission through the laser portion and the radio frequency portion. In the specification, beginning at the top of page 18, the incremental switch which allows for different levels of shifting between the laser portion and the radio frequency portion is described in detail.

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Thus, the Applicants submit that the specification does comply with the enablement requirement, by providing sufficient description to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

15 **2. 35 USC § 112 – Claims 2, 8, 19, 29, 32, and 43**

In sections 4 and 5 of the current office action, the Examiner rejected claims 2, 8, 19, 29, 32, and 43 under 35 USC 112, second paragraph as failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner stated that “Claims 2, 8, 19, 29, 32, and 43 each recites limitations such as  
20 ... controller is configured as a binary switch such that the data is transmitted exclusively through either one of the laser portion and the radio frequency portion. However, such limitations are in contradict[ion] with the limitations such as ... allocate portions of the data to be transmitted through the laser portion **and** the radio frequency portion, which are recited in respective claims 1, 18, 29, and 42.” The Applicants respectfully disagree  
25 with the conclusion drawn by the Examiner.

Claim 1 claims, in part, “a controller ... connected with the laser portion and the radio frequency portion to allocate portions of the data to be transmitted through the laser portion and the radio frequency portion.” Claim 2 claims, in part, “wherein the controller  
30 is configured ... such that the data is transmitted exclusively through either one of the

laser portion and the radio frequency portion.” The Applicants submit that Claim 2 is one way in which the controller of Claim 1 can be implemented. There is nothing in the language of Claim 1 that indicates that the data being allocated cannot be 100% through the laser portion and 0% through the radio frequency portion, or vice versa, as would be the case if the controller was implemented as claimed in Claim 2. The binary switch of claim 2 is still connected with the laser portion and the radio frequency portion, as the controller of Claim 1 claims. Further, the binary switch allocates portions through the laser portion and the radio frequency portion, just not at the same time. There is no language in Claim 1 which claims that a portion of the signal is transmitted through the laser portion and a portion of the signal is transmitted through the radio frequency portion. Instead, the claim language supports many embodiments, wherein all of the signal is allocated to the laser portion, all of the signal is allocated to the radio frequency portion, or some of the signal is allocated to the laser portion and some of the signal is allocated to the radio frequency portion. Therefore, the Applicants submit Claims 2, 8, 19, 29, 32, and 43 do not contradict Claims 1, 18, 29 and 42. Instead, the Applicants submit that Claims 2, 8, 19, 29, 32, and 43 claim embodiments of the invention more broadly claimed in Claims, 1, 18, 29, and 42. Therefore, the Applicants respectfully request the Examiner withdraw the 35 USC 112, first paragraph rejection of Claims 2, 8, 19, 29, 32, and 43.

### **3. 35 USC § 102(e) – Claims 1 – 51**

In sections 6 and 7 of the current office action, the Examiner rejected Claims 1 – 51 under 35 USC § 102(e) as being anticipated by Willebrand et al. (Patent Application Publication No: 2004/0037566 A1), herein referred to as the “Willebrand reference.”

#### **Interference**

As the Examiner noted, all of the claims of the Willebrand reference are exactly the same as Claims 1-28 of the Applicants’ application. MPEP section 706.02(b) sets forth how an Applicant can overcome a 35 USC 102(e) rejection by stating “[a] rejection based on 35 USC 102(e) can be overcome by: ... (D) Filing an affidavit or declaration under 37 CFR

1.131 showing prior invention, if the reference is not a ... U.S. patent application claiming the same patentable invention. ... When the claims of the reference U.S. patent application publication and the application are directed to the same invention or are obvious variants, an affidavit or declaration under 37 CFR 1.131 is not an acceptable method of overcoming the rejection. Under these circumstances, the examiner must determine whether ... an interference is appropriate. ... If there is no common assignee or inventor and the rejection under 35 USC 102(e) is the only possible rejection, the examiner must determine whether an interference should be declared.”

10 The Applicants note that the prior application, to which the Willebrand reference claims priority, was filed on January 13, 2000. As submitted a 1.131 Affidavit in response to the first office action, the Applicants claim that they initially conceived of the invention on at least January 19, 1999, with a first completed embodiment on January 25, 2000.

15 Section 2300 of the MPEP sets forth the requirements for declaring an interference. MPEP section 2303 describes an Interference between Applications. According to MPEP 2303, where two or more applications are found to be claiming the same patentable invention, they may be put in interference. One of the applications should be in condition for allowance. However, MPEP 2303 does allow for unusual circumstances which may justify an exception if the approval of the TC Director is obtained. MPEP 2303 states  
20 that Interferences will not be declared between pending applications if there is a difference of more than 6 months in the effective filing dates, except in exceptional situations, as determined and approved by the TC Director. Therefore, since the Applicants are unaware if the Willebrand reference is in order for allowance and the  
25 present application is not yet in order for allowance, and the two applications have effective filing dates of more than 6 months, the Applicants submit that this may need to be an exceptional situation for which an interference needs to be granted by the approval of the TC Director.

It seems that the change in the patent rules, publishing patent applications after 18 months, has caused a loop-hole in declaring an interference. Before the rule publishing applications after 18 months, claims would only become known to others upon the publication of a patent. Thus, if someone wanted to provoke an interference, the person  
5 would copy the claims from a published patent into his patent application and notify the Examiner. However, applications are presently published after 18 months. Thus, in some instances, a patent application may be published before a first office action issues, and is generally published before the application is allowed.

10 This apparent loop-hole is preventing the Applicants from moving forward with their patent application. Since the Willebrand reference contains an earlier effective date, but not an earlier filing date, and is published, the Willebrand reference is prior art. In addition, the claims of the Willebrand reference are claims copied from the Applicants' pending application. Therefore, the Applicants cannot swear behind the Willebrand  
15 reference, nor can the Applicants argue around the reference since the claims are identical. Therefore, the Applicants cannot place the pending application in order for allowance. If one of the two applications has to be in order for allowance before an interference is declared, the Applicants are at the mercy of the prosecution of the Willebrand reference. The Applicants must wait for the Willebrand reference to be  
20 placed in order for allowance before an interference can be declared. The Applicants note, and argue below, that the claims currently pending in the Willebrand reference are not taught in the specification of the Willebrand reference. Thus, the claims in the Willebrand reference are new matter, and not entitled to the priority date of the Willebrand reference. However, the Applicants understand it is up to the Examiner of the  
25 Willebrand reference to make the determination that the claims of the Willebrand reference are not taught by, and thus not enabled by, the specification of the Willebrand reference. In light of the foregoing, the Applicants respectfully request that the Examiner declare an interference, or explain to the Applicants what the Applicants can do in order to move the prosecution of this patent application forward without having to concede

claims which the Applicants currently assert they have a right to, since the Applicants believe they are the first inventors.

MPEP 2304 also provides for an applicant to seek to have an interference declared with an application of another by (1) suggesting a proposed count and presenting at least one claim corresponding to the proposed count or identify at least one claim in its application that corresponds to the proposed count, (2) Identifying the other application and, if known, a claim in the other application which corresponds to the proposed count, and (3) explaining why an interference should be declared.

The Applicants respectfully request that an interference be declared between the Applicants pending application no. 09/800,917 and U.S Patent Application No. 10/646,994 to Willebrand et al. A count proposed by the Applicants is a system and method for a hybrid radio frequency and optical wireless communication link. The Applicants submit that Claims 1-51 of their application no. 09/800,917 correspond to the proposed count. Further, the Applicants submit that the pending claims 1-28 of U.S. Application No. 10/646,994 also correspond to the proposed count. The Applicants submit that an interference should be declared because the Applicants believe they can show a conception date of at least January 1999 with a diligent reduction to practice and filing of the patent application, which is prior to the filing date of the Willebrand reference. Further, the Applicants are unaware of any other way to proceed with the prosecution of their pending application if an interference is not declared, as explained above. An interference is necessary to determine which of the two parties invented first with diligent reduction to practice.

#### *Claim 2*

In rejecting Claim 2, the Examiner stated:

Regarding claims 2 and 8, Willebrand teaches the controller is configured as a binary switch such that the data is transmitted exclusively through either one of the laser portion or radio frequency portion (page 12, see claim 2).

In order to establish a *prima facie* case of anticipation, the Examiner must set forth an argument that provides (1) a single reference (2) that teaches or enables (3) each of the claimed elements (as arranged in the claim) (4) either expressly or inherently and (5) as interpreted by one of ordinary skill in the art. All of these factors must be present, or a case of anticipation is not met. Thus, “[a]nticipation requires that every element of the claims appear in a single reference ...” *Continental can Co. USA v. Monsanto Co.* 948 F.2d 1264 (Fed. Cir. 1991).

The Examiner appears to be relying upon the fact that Claim 2 of the Willebrand reference is exactly the same as Claim 2 of the Applicants’ application. The Applicants concede that Claim 2 of the Willebrand reference is the same as Claim 2 of their pending application. However, Claim 2 of the Willebrand reference was not present in the U.S. Application No. 09/482,782 filed on January 13, 2000, to which the Willebrand reference claims priority. Claim 2 in the Willebrand reference did not come into existence until the filing of the Willebrand reference itself which was filed on August 21, 2003. This date is after the filing date of the Applicants’ application on March 5, 2001. Thus, the claims of the Willebrand reference cannot be used alone to anticipate the claims in Applicants’ application because they were not filed before the Applicants’ application. The Examiner has not indicated where in the Willebrand reference, other than in Claim 2, that the Examiner believes the Willebrand reference teaches the limitations of Claim 2. In addition, Claim 2 claims, in part, “the controller is configured as a binary switch.” The Applicants are unaware where in the Willebrand reference this limitation is taught, disclosed or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the limitation of Claim 2, in a non-final office action, so that the Applicants may respond.

*Claims 3 and 4*

In rejecting Claims 3 and 4, the Examiner stated:

Regarding claims 3-4, 7, and 9, Willebrand teaches the controller is configured to receive environmental information and wherein the portions of the data to be transmitted through the laser portion and the radio portion are adjusted by the controller based on the environmental information (page 12, see claim 3).

In rejecting Claims 3 and 4, the Examiner merely points to Claims 3 and 4, respectively,  
5 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claims 3 and 4 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are  
10 unaware where in the Willebrand reference “the controller is configured to receive environmental information,” as claimed in Claims 3 and 4, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request  
15 that the Examiner clarify his position as to how the Willebrand reference teaches the limitations of Claims 3 and 4, in a non-final office action, so that the Applicants may respond.

*Claim 6*

20 In rejecting Claim 6, the Examiner stated:

Regarding claims 6, 13, and 16, Willebrand teaches the laser portion and the radio frequency portion are configured to transmit in multiple channels (page 12, see claim 6).

In rejecting Claim 6, the Examiner merely points to Claim 6 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must  
25 supply where in the specification of the Willebrand reference he finds that the limitations



of Claim 6 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “the laser portion and the radio frequency portion are configured to transmit in multiple channels,” as claimed in Claim 6, is taught, disclosed, or suggested. Therefore, the Applicants  
5 submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the limitations of Claim 6, in a non-final office action, so that the Applicants may respond.

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*Claim 7*

The Examiner rejected Claim 7 for the same reasons he rejected Claims 3 and 4. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 7 for the same reasons given above for Claims 3 and 4.

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*Claim 8*

The Examiner rejected Claim 8 for the same reasons he rejected Claim 3. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 8 for the same reasons given above for Claim 2.

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*Claim 9*

The Examiner rejected Claim 9 for the same reasons he rejected Claims 3 and 4. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 9 for the same reasons given above for Claims 3 and 4.

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*Claim 11*

In rejecting Claim 11, the Examiner stated:

Regarding claim 11, Willebrand teaches the controller includes a plurality of latches and a logic device, wherein the plurality of latches and logic device operate to provide adjustment levels for the portions of the data to be transmitted through the laser portion and the radio frequency portion (page 12, see claim 11).

In rejecting Claim 11, the Examiner merely points to Claim 11 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 11 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “the controller includes a plurality of latches and a logic device, wherein the plurality of latches and logic device operate to provide adjustment levels for portions of the data to be transmitted through the laser portion and the radio frequency portion,” as claimed in Claim 11, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the limitations of Claim 11, in a non-final office action, so that the Applicants may respond.

#### *Claim 13*

The Examiner rejected Claim 13 for the same reasons he rejected Claim 6. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 13 for the same reasons given above for Claim 6.

#### *Claim 15*

In rejecting Claim 15, the Examiner stated:

Regarding claim 15, Willebrand teaches the laser portion and the radio frequency portion are configured to transmit and receive in tandem, whereby the node may be configured to provide a hybrid serial link to permit tailored radio frequency or optical network connections (page 12, see claim 15).

In rejecting Claim 15, the Examiner merely points to Claim 15 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the  
5 Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 15 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “at least one laser portion and the at least one radio frequency portion are configured to transmit and receive in tandem, whereby the node may be configured to  
10 provide a hybrid serial link to permit tailored radio frequency or optical network connections,” as claimed in Claim 15, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner  
15 clarify his position as to how the Willebrand reference teaches the limitations of Claim 15, in a non-final office action, so that the Applicants may respond.

#### *Claim 16*

The Examiner rejected Claim 16 for the same reasons he rejected Claim 6. Therefore, the  
20 Applicants respectfully request the Examiner withdraw his rejection of Claim 16 for the same reasons given above for Claim 6.

#### *Claim 17*

In rejecting Claim 17, the Examiner stated:

Regarding claim 17, Willebrand teaches an optical reflector is used to deflect transmissions from the laser portion in order to work around fixed objects in the environment, whereby the node may be used to extend a network and the laser portion can maintain communication without the need for a strict line-of-site connection (page 12, see claim 17).

In rejecting Claim 17, the Examiner merely points to Claim 17 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 17 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “an optical reflector is used to deflect transmissions from the laser portion in order to work around fixed objects in the environment, whereby the node may be used to extend a network and the laser portion can maintain communication without the need for a strict line-of-site connection,” as claimed in Claim 17, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the limitations of Claim 17, in a non-final office action, so that the Applicants may respond.

#### *Claim 19*

In rejecting Claim 19, the Examiner stated:

Regarding claims 19, 32, and 43, as it is understood in view of the above problem, Willebrand teaches the controller of each node is configured as a binary switch such that the data is transmitted exclusively through either one of the laser portion or the radio frequency portion (page 12, see claim 19).

In rejecting Claim 19, the Examiner merely points to Claim 19 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the

Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 19 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “the controller of each node is configured as a binary switch such that the data  
5 is transmitted exclusively through either one of the laser portion or the radio frequency portion,” as claimed in Claim 19, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner  
10 clarify his position as to how the Willebrand reference teaches the limitations of Claim 19, in a non-final office action, so that the Applicants may respond.

*Claims 20-21*

In rejecting Claims 20-21, the Examiner stated:

Regarding claims 20-21, 29, 33, 42 and 45, as it is understood in view of the above 112 problems, Willebrand teaches the controller of each node is configured to receive environmental  
15 information, and wherein the portion of data to be transmitted through the laser portion or the radio frequency portion are adjusted by the controller based on the environmental information (pages 12, 13, see claims 20-21). As to claims 29 and 42, it further requires similar limitations, as recited in claim 18 above.

In rejecting Claims 20 and 21, the Examiner merely points to Claims 20 and 21, respectively, of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim  
20 priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claims 20 and 21 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “wherein the controller is configured to receive environmental information, and wherein the portions of the data to  
25 be transmitted through the laser portion and the radio frequency portion are adjusted by

the controller based on the environmental information,” as claimed in Claims 20 and 21, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the

- 5 Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the limitations of Claims 20 and 21, in a non-final office action, so that the Applicants may respond.

*Claim 23*

- 10 In rejecting Claim 23, the Examiner stated:

Regarding claims 23, 31, 37, 40, and 46, Willebrand teaches the laser portion and the radio frequency portion of each node are configured to transmit in multiple channels (page 13, see claim 23).

- In rejecting Claim 23, the Examiner merely points to Claim 23 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because
- 15 the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 23 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “the laser portion and the radio frequency portion of each node are configured
- 20 to transmit in multiple channels,” as claimed in Claim 23, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the
- 25 limitations of Claim 23, in a non-final office action, so that the Applicants may respond.

*Claim 24*

In rejecting Claim 24, the Examiner stated:

Regarding claims 24, 39, and 49, Willebrand teaches the laser portion and the radio frequency portion are configured to transmit and receive in tandem, whereby the node may be configured to provide a hybrid serial link to permit tailored radio frequency or optical network connections (page 13, see claim 24).

In rejecting Claim 24, the Examiner merely points to Claim 24 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 24 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “at least one laser portion and the at least one radio frequency portion are configured to transmit and receive in tandem, whereby the node may be configured to provide a hybrid serial link to permit tailored radio frequency or optical network connections,” as claimed in Claim 24, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the limitations of Claim 24, in a non-final office action, so that the Applicants may respond.

#### *Claim 25*

In rejecting Claim 25, the Examiner stated:

Regarding claims 25, 27, 47, and 50, Willebrand teaches at least a portion of the network is configured with a ring topology (page 13, see claims 25, 27).

In rejecting Claim 25, the Examiner merely points to Claim 25 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 25 are taught, disclosed, or suggested in order to establish a

*prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “at least a portion of the network is configured with a ring topology,” as claimed in Claim 25, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and

5 respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner clarify his position as to how the Willebrand reference teaches the limitations of Claim 25, in a non-final office action, so that the Applicants may respond.

10 *Claim 26*

In rejecting Claim 26, the Examiner stated:

Regarding claims 26, 28, 48, and 51, Willebrand teaches at least a portion of the network is configured as a SONET ring (page 13, see claims 26, 28).

In rejecting Claim 26, the Examiner merely points to Claim 26 of the Willebrand reference. As stated above with respect to Claim 2, the Applicants submit that because

15 the claims of the Willebrand reference cannot claim priority to the priority date, the Examiner must supply where in the specification of the Willebrand reference he finds that the limitations of Claim 26 are taught, disclosed, or suggested in order to establish a *prima facie* case of anticipation. The Applicants are unaware where in the Willebrand reference “the controller of each node is configured as a binary switch such that the data

20 is transmitted exclusively through either one of the laser portion or the radio frequency portion,” as claimed in Claim 26, is taught, disclosed, or suggested. Therefore, the Applicants submit that the Examiner has failed to establish a *prima facie* case of anticipation, and respectfully request that the rejection be withdrawn. If the Examiner continues to maintain his rejection, the Applicants respectfully request that the Examiner

25 clarify his position as to how the Willebrand reference teaches the limitations of Claim 26, in a non-final office action, so that the Applicants may respond.



*Claim 27*

The Examiner rejected Claim 27 for the same reasons he rejected Claim 25. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 27 for the same reasons given above for Claim 25.

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*Claim 28*

The Examiner rejected Claim 28 for the same reasons he rejected Claim 26. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 28 for the same reasons given above for Claim 26.

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*Claim 29*

In rejecting Claim 29, the Examiner stated:

Regarding claims 20-21, 29, 33, 42 and 45, as it is understood in view of the above 112 problems, Willebrand teaches the controller of each node is configured to receive environmental information, and wherein the portion of data to be transmitted through the laser portion or the radio frequency portion are adjusted by the controller based on the environmental information (pages 12, 13, see claims 20-21). As to claims 29 and 42, it further requires similar limitations, as recited in claim 18 above.

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The Applicants do not understand the Examiner's rejection of Claim 29 as stated here. Further, in addition, to the Applicants arguments presented above with reference to Claim 2, that the claims of the Willebrand reference cannot be used to anticipate the claims in the Applicants' pending application, the Applicants further submit that the Willebrand reference does not teach, disclose, or suggest the elements of Claim 29. The Applicants assert that the Willebrand reference teaches a system which operates in one of two modes "an active" mode or a "stand-by mode." The Applicants understand that the "active mode" is when the system transmits data over the optical link, and status and control information over the RF link, while in the stand-by mode, the system disclosed in the Willibrand reference transmits the data, the status, and the control information over the RF link. Thus, the data is transmitted either over the RF link or the optical link. This is

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in contrast to “allocate[ing] portions of the data to be transmitted simultaneously through the laser portion and the radio frequency portion,” as is claimed in Claim 29. (emphasis added) Consequently, the Applicants submit that the Willebrand reference does not teach, disclose, or suggest all of the limitations of Claim 29. Therefore, the Applicants respectfully request that the Examiner withdraw his rejection to Claim 29. If the Examiner continues to maintain his rejection of Claim 29, the Applicants respectfully request that the Examiner point out, in a non-final office action, where in the specification of the Willebrand reference each limitation of Claim 29 is taught, disclosed, or suggested.

*Claim 30*

The Examiner rejected Claim 30 for the same reasons he rejected Claim 22. However, the limitations presented in Claim 30 are similar to Claim 5 and not similar to Claim 22. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 30 for the same reasons given above for Claim 5.

*Claim 31*

The Examiner rejected Claim 31 for the same reasons he rejected Claim 23. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 31 for the same reasons given above for Claim 23.

*Claim 32*

The Examiner rejected Claim 32 for the same reasons he rejected Claim 19. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 32 for the same reasons given above for Claim 19.

*Claim 33*

The Examiner rejected Claim 33 for the same reasons he rejected Claim 20. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 33 for the same reasons given above for Claim 20. Further, the Applicants note that Claim 33

has additional limitations not present in Claim 20. Specifically, Claim 33 claims, in part, “the environmental information consist of weather-related data, and wherein the portions of the data to be transmitted through the laser portion and the radio frequency portion are adjusted by the controller based on the weather-related data.” The Applicants assert that

5 the Examiner has not shown where in the Willebrand reference this limitation is taught, disclosed, or suggested. Further, the Applicants are unaware where in the Willebrand reference this limitation is taught, disclosed, or suggested. Thus, the Applicants assert that the Examiner has failed to establish a *prima facie* case of anticipation. Therefore, the Applicants respectfully request that the Examiner’s rejection be withdrawn. If the

10 Examiner continues to maintain his objection, the Applicants respectfully request that that the Examiner further clarify his position in a non-final office action, so that the Applicants may have a chance to respond.

*Claim 35*

15 The Examiner rejected Claim 35 for the same reasons he rejected Claim 12. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 35 for the same reasons given above for Claim 12.

*Claim 37*

20 The Examiner rejected Claim 37 for the same reasons he rejected Claim 23. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 37 for the same reasons given above for Claim 23.

*Claim 39*

25 The Examiner rejected Claim 39 for the same reasons he rejected Claim 24. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 39 for the same reasons given above for Claim 24.

*Claim 40*

The Examiner rejected Claim 40 for the same reasons he rejected Claim 23. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 40 for the same reasons given above for Claim 23.

5     *Claim 41*

The Examiner rejected Claim 41 for the same reasons he rejected Claim 17. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 41 for the same reasons given above for Claim 17.

10    *Claim 42*

The Examiner rejected Claim 42 for the same reasons he rejected Claims 18 and 20. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 42 for the same reasons given above for Claim 18 and 20.

15    *Claim 43*

The Examiner rejected Claim 43 for the same reasons he rejected Claim 19. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 43 for the same reasons given above for Claim 19.

20    *Claim 45*

The Examiner rejected Claim 45 for the same reasons he rejected Claim 33. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 45 for the same reasons given above for Claim 33.

25    *Claim 46*

The Examiner rejected Claim 46 for the same reasons he rejected Claim 23. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 46 for the same reasons given above for Claim 23.

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*Claim 47*

The Examiner rejected Claim 47 for the same reasons he rejected Claim 25. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 47 for the same reasons given above for Claim 25.

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*Claim 48*

The Examiner rejected Claim 48 for the same reasons he rejected Claim 26. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 48 for the same reasons given above for Claim 26.

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*Claim 49*

The Examiner rejected Claim 49 for the same reasons he rejected Claim 24. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 49 for the same reasons given above for Claim 24.

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*Claim 50*

The Examiner rejected Claim 50 for the same reasons he rejected Claim 25. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 50 for the same reasons given above for Claim 25.

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*Claim 51*

The Examiner rejected Claim 51 for the same reasons he rejected Claim 26. Therefore, the Applicants respectfully request the Examiner withdraw his rejection of Claim 51 for the same reasons given above for Claim 26.

25

**4. 35 USC § 103(a)**

The Examiner rejected Claims 1, 5, 6, 15, 16, 18, and 23-24 under 35 U.S.C. § 103(a) as being unpatentable over Perdue et al. (US Pat. No. 6,529,556), herein referred to as the "Perdue patent" in view of Taglione et al. (US Pat. No. 5,966,225), herein referred to as the "Taglione patent."

30

Referring to Claims 1 and 18, the Examiner stated that the Perdue patent teaches a node (referring to 10, Fig. 1) incorporating hybrid radio frequency and optical wireless communication links (referring to col. 3, lines 65-67, col. 4, lines 1-9), the node

5 comprising: an IR portion for transmitting data (referring to 16, Fig. 1); a RF portion for transmitting data (referring to 17, Fig. 1); a data receiver (referring to 14 and 22, Fig. 1) for receiving data from a data source (referring to 20, Fig. 1); and a controller (referring to 14, Fig. 1) configured to receive data from a data source and connected with the IR portion and the RF portion to allocate portions of the data to be transmitted through the

10 IR portion and the RF portion (referring to col. 2, lines 14-19, and col. 5, lines 39-47). However, the Examiner further noted that the Perdue patent differs from the claimed invention in that the Perdue patent does not specifically disclose allocating portions of data for transmission through the IR portion, or allocating portions of data for transmission through the RF portion. The Examiner further stated that the Perdue patent

15 teaches the transmission of both RF and IR signal for each user input (referring to col. 5, lines 39-40), and wherein portions of data (referring to 70 and 72, Fig. 4) are allocated for transmission through the IR portion (referring to 16, Fig. 1 and 70, Fig. 4), and portions of data are allocated (referring to 72, Fig. 4) for transmission through the RF portion (referring to 17, Fig. 1). Therefore, the Examiner concluded that it would have been

20 obvious to a person of ordinary skill in the art at the time of invention that a data communication system with a controller such as the one taught on the Perdue patent can allocate portions of data for transmission through the IR portion, or portions of data through the RF portion to transmit portions of data signal in both IR and RF forms (referring to col. 2, lines 15-19). In addition, the Examiner noted that the Perdue patent

25 further differs from the claimed invention in that the Perdue patent does not specifically disclose the IR portion is a laser. However, the Examiner stated that the Perdue patent further teaches that any one of a number of conventionally known IR transmitter arrangements may be used (referring to col. 5, lines 23-25), and the Examiner then concluded that it is well known to incorporate a laser for transmitting data signal, as such

30 concept is taught by the Taglione patent. The Examiner further stated that the Taglione

patent teaches an IR transceiver (referring to 100, Fig. 3 and col. 3, lines 47-56), wherein the IR emitter (referring to 108, Fig. 3) can be a laser diode (referring to col. 3, lines 53-54). Therefore, the Examiner concluded that it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a laser transmitter, as it is taught by the Taglione patent, for the IR transmission portion in the data transmission system of the Perdue patent to generate a uniform, narrow, and relatively high power output light.

Referring to Claim 5, the Examiner stated that the Perdue patent teaches that the IR portion is configured to both transmit and receive and that the RF portion is configured to both transmit and receive (referring to col. 2, lines 51-55, col. 9, lines 8-24, and col. 10, lines 13-34).

Referring to Claims 6 and 23, the Examiner stated that the Perdue patent teaches that the IR portion and the RF portion are configured to transmit and receive in multiple channels (referring to col. 6, lines 23-34 and 76, 78 and 80, 82, Fig. 5).

Referring to Claims 15 and 24, the Examiner stated that the Perdue patent teaches that the IR portion and the RF portion are configured to transmit and receive in tandem (referring to col. 2, lines 15-19).

Referring to Claim 16, the Examiner stated that the Perdue patent teaches that the IR portion and the RF portion are configured to transmit and receive in multiple channels (referring to col. 6, lines 23-34 and 76, 78 and 80, 82, Fig. 5).

Regarding Claims 1 and 18 rejections over the Perdue patent in view of the Taglione patent

The Applicants sincerely thank the Examiner for acknowledging that the Perdue patent does not specifically disclose allocating portions of data for transmission through the IR

portion, or allocating portions of data transmission through the RF portion, and for acknowledging that the Perdue patent does not specifically disclose that the IR portion is a laser portion.

5 As noted by MPEP 2143.03 to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. The Applicants respectfully submit that the combination of the Perdue patent with the Taglione patent does not teach all of the claim limitations of Claims 1 and 18. Specifically, the Applicants assert that the combination does not teach, disclose, or suggest “a controller configured to receive data  
10 from a data source and connected with the laser portion and the radio frequency portion to allocate portions of the data to be transmitted through the laser portion and the radio frequency portion,” as is claimed in Claims 1 and 18.

The Applicants respectfully note (referring to col. 2, lines 14-19) that the Perdue patent  
15 discloses a “controller that generates the appropriate signal format in response to a user key press and applies that signal format to both the IR and the RF signal transmitter simultaneously.” The Applicants submit that the system disclosed in the Perdue patent transmits the same complete signal through both the IR transmitter and the RF transmitter (referring to col. 3 lines 30-37) in a time-multiplexed manner. The system disclosed in  
20 the Perdue patent generates a complete IR signal corresponding to the user input, transmits this complete IR signal, generates a complete RF signal corresponding to the same user input, and transmits this RF signal. The Applicants further submit that the system disclosed in the Perdue patent clearly transmits both a RF signal and an IR signal corresponding to a user input in a time multiplexed manner (referring to col. 5, lines 39-  
25 51) without separating the IR and RF signals into portions. The system disclosed in the Perdue patent transmits the complete IR signal during a time interval (referring to 70, Fig. 4), then transmits the complete RF signal during the following time interval (referring to 72, Fig. 4), and continues to repeat the transmitting sequence alternating between transmitting the complete IR signal and the complete RF signal for as long as the input  
30 from the user continues to be the same, “... in this manner, the IR and RF signals are



alternated and transmitted for as long as the user input is provided at the input device.”

Thus, the system disclosed in the Perdue patent transmits the complete IR signal during time intervals 70, 74, 78, and so on (referring to Fig. 4 and Fig. 5) and transmits the complete RF signal during the time intervals 72, 76, 80, and so on (referring to Fig. 4 and Fig. 5) until the input changes, wherein both IR and RF signals correspond to the same input signal. Therefore, the Perdue patent never discloses, or even suggests, transmitting only a portion of the data through the radio signal sending circuit (referring to 17, Fig. 1) or the IR sending circuit (referring to 16, Fig. 1). In contrast, the present invention claims, in Claims 1 and 18, “a controller configured to ... allocate portions of the data to be transmitted through the laser portion and the radio frequency portion,” not sending the same complete signal in IR form and RF form by alternating time intervals between the transmission of the complete signal in IR form and the transmission of the complete signal in RF form as is taught by the Perdue patent.

Further, “If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Also, “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

With regard to substituting a laser transmitter, as it is taught by the Taglione patent, for the IR transmission portion in the transmission system of the Perdue patent, the

Applicants respectfully refer the Examiner to the Taglione patent (referring to col. 3, lines 52-57), where it states that a medium band IR emitter is based upon a laser diode, which will be arranged to provide a diffuse, relatively high power (about 500 mW) transmission. The Applicants further refer the Examiner to the Perdue patent (referring to col. 5, lines 23-34) “... the IR transmitter includes an LED coupled to an LED driver circuit which is controlled by a controller,” wherein a LED is driven by a low power

source and the LED in turn emits a low power output. In addition, the Applicants refer the Examiner to the Perdue patent (referring to col. 4, lines 1-9) wherein the Perdue patent claims to be used to transmit signals for wireless keyboards, wireless pointing devices, and handheld remote control devices, all of which require a low power IR signal output in order to avoid burning or injuring the user or any one standing on the way of the IR signal being transmitted. Thus, the main applications claimed in the Perdue patent (referring to col. 4, lines 1-9) require low power IR signal transmission.

The Applicants respectfully conclude that the proposed modification of combining the prior art from the Perdue patent, which require low power IR signal transmission, with the prior art taught by the Taglione patent, which have relatively high power (about 500 mW) transmission by using a laser during the optical transmission, would change the principle of operation of the Perdue patent. Thus, it would not have been apparent to any one skilled in the art to use the prior arts in this manner, since the combination of the prior art references would render the Perdue patent unsatisfactory for its intended purpose.

Further, the Applicants submit that the prior art references do not contain any suggestion or motivation express or implied that they be combined. Therefore, the teachings of the references are not sufficient to render Claim 1 *prima facie* obvious. MPEP 706.02(j) states that the teaching or suggestion to make the claimed combination ... must be found in the prior art and not based on applicant's own disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Applicants are unaware where in either the Perdue or Taglione patent it is taught, disclosed, or suggested that the IR portion of the Perdue patent should be a uniform, narrow and relatively power output light, thus suggesting the motivation to replace the IR portion of the Perdue patent with a laser. The Applicants respectfully request that the Examiner indicate where in the prior art he is finding the motivation to combine the references.

For the foregoing reasons the Applicants respectfully believe that Claims 1 and 18, as written, are patentable over the combination of prior art references and respectfully requests that these rejections of Claims 1 and 18 under 35 USC §103(a) be withdrawn.

5     Regarding Claims 10, 12, 14, and 22 rejections over the Perdue patent in view of the Taglione patent and in further view of the Vollert patent

The Examiner rejected Claims 10, 12, 14, and 22 under 35 U.S.C. 103(a) as being unpatentable over Perdue et al. (US Pat. No. 6,529,556), herein referred to as the “Perdue patent,” in view of Taglione et al. (US Patent No: 5,966,225), herein referred  
10   to as the “Taglione patent,” and in further view of Vollert (German Patent No: DE 44 33 896 CI), herein referred to as the “Vollert patent.”

In particular the Examiner stated that, regarding Claims 10, 12, 14, and 22, the modified data transmission system of the Perdue and Taglione patents differ from the claimed  
15   invention in that the Perdue and the Taglione patents do not disclose the controller is configured to monitor the transmit and receive strengths. The Examiner further stated that the Vollert patent teaches bi-directional transmission and reception of information over radio link (referring to FUS, Fig. 1) or optical link (referring to IUS, Fig. 1) based on verification of the transmission quality of different paths (referring to translation  
20   page 5, last paragraph and page 6, first paragraph) by a controller (referring to PST, Fig. 1) and switching (referring to translation page 6, lines 10-12) from one link to the other based on the evaluation and measurement results (referring to translation page 6, lines 3-18). The Examiner then concluded that it would have been obvious to a person of ordinary skill in the art to incorporate a controller such as the one of the Vollert patent  
25   for the controller in the modified data transmission system of the Perdue and the Taglione patents to verify the transmission quality of the transmission path.

Claims 10, 12, and 14 are dependent upon Claim 1 and Claim 22 is dependent upon Claim 18. Therefore, the Applicants respectfully refer the Examiner to the comments  
30   above regarding Claims 1 and 18. As stated before and repeated here for clarity, the

Perdue and Taglione patents never disclose or even suggest transmitting only a portion of the data through the radio signal sending circuit or the IR sending circuit.

Furthermore, the proposed modification of combining the prior art from the Perdue patent, which requires low power IR signal transmission, with the prior art taught by the Taglione patent, which has relatively high power (about 500 mW) transmission by using a laser during the optical transmission, would change the principle of operation of the Perdue patent. Thus, it would not have been apparent to any one skilled in the art to use the prior arts in this manner, since the combination of the prior art references would render the Perdue patent unsatisfactory for its intended purpose. In addition, the prior art references do not contain any suggestion or motivation express or implied that they be combined. Therefore, the Applicants submit that these Claims 10, 12, 14, and 22 are patentable over the cited prior art at least through their dependence upon an allowable base claims.

Furthermore, as noted by MPEP 2143.03 to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. The Applicants respectfully submit that the combination of the Vollert patent with either the Perdue or Taglione patent does not teach all of the claim limitations of Claims 1 and 18. Specifically, the Applicants assert that the combination does not teach, disclose, or suggest “a controller configured to received data from a data source and connected with the laser portion and the radio frequency portion to allocate portions of the data to be transmitted through the laser portion and the radio frequency portion,” as is claimed in Claims 1 and 18.

The Applicants respectfully note that the Vollert patent never discloses or even suggests transmitting only “a portion” of the data through the IR portion for transmitting data or through the RF portion for transmitting data. In contrast with the present invention, the Vollert patent clearly transmits data only to either the radio transmission path or the infrared transmission path as claimed in Claim 1 of the Vollert patent (referring page 6, Claim 1, and page 1, lines 28-32) “... depending on the result of the verification, the

exchange of information is directed over the bidirectional infrared transmission path (IUS) or the bidirectional radio transmission path (FUS) ...” Therefore, the Vollert patent never teaches, discloses or suggests to “allocate portions of the data to be transmitted through the laser portion and the radio frequency portion,” as is claimed in  
5 Claims 1 and 18, since the Vollert patent disables one transmission path while enabling the other transmission path.

Further, “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or  
10 motivation to make the proposed modification.” *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Also, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

15 With regard to incorporating a laser transmitter, as it is taught by the Taglione patent, for the IR transmission portion in the transmission system of the Vollert patent, the Applicants respectfully refer the Examiner to the Taglione patent (referring to col. 3, lines 52-57), where it is stated that a medium band IR emitter is based upon a laser diode,  
20 which will be arranged to provide a diffuse, relatively high power (about 500 mW) transmission. The Applicants further refer the Examiner to the Vollert patent (referring to page 3, lines 14-19) “[a] further advantage of the method according to the invention ... the average power consumption in the communication terminals is lower because of the lower transmitting power of the infrared transmission path ... .” Thus, one of the main  
25 advantages claimed in the Vollert patent (page 1, Fig. 1 description) is that in order to save consumption of power, the Vollert patent allows for the transmission of signals using only the bidirectional infrared transmission path whenever possible, which has lower power consumption than the radio transmission path; thus limiting the radio transmissions substantially and reducing the average power consumption.

Therefore, the Applicants respectfully assert that the proposed modification of combining the prior art from the Vollert patent, which claims low power consumption during the infrared transmission, with the prior art taught by the Taglione patent, which have relatively high power (about 500 mW) transmission by using a laser during the infrared transmission, would change the principle of operation of the Vollert patent. Thus, it would not have been apparent to any one skilled in the art to use the prior arts in this manner, since the combination of the prior art references would render the Vollert patent unsatisfactory for its intended purpose.

Further, the Applicants submit that the prior art references do not contain any suggestion or motivation express or implied that they be combined. Therefore, the teachings of the references are not sufficient to render Claim 1 *prima facie* obvious. MPEP 706.02(j) states that the teaching or suggestion to make the claimed combination ... must be found in the prior art and not based on applicant's own disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Applicants are unaware where in either the Perdue, Taglione or Vollert patent it is taught, disclosed or suggested that the Infrared portion of the Perdue and Vollert patents should be uniform, narrow and relatively power output light, thus suggesting the motivation to replace the IR portion of the Perdue and Vollert patents with a laser. The Applicants respectfully request that the Examiner indicate where in the prior art he is finding the motivation to combine the references.

For the foregoing reasons the Applicants respectfully submit that Claims 10, 12, 14, and 22, as written, are patentable over the combination of prior art references and respectfully requests that this rejections of Claims 10, 12, 14, and 22 under 35 USC §103(a) be withdrawn.

#### *Dependent Claims*

Claims 2-17 are dependent upon Claim 1 and Claims 19-28 are dependent upon Claim 18. For the reasons given above, the Applicants submit that Claims 1 and 18 are patentable over the cited prior art. Therefore, the Applicants submit that Claims 2-17 and

19-28 are also patentable over the cited prior art at least based on their dependence upon an allowable base claim.

**Closing Remarks:**

The Applicants respectfully submit that in light of the above comments and remarks, all claims are now in allowable condition. The Applicants thus respectfully request timely allowance of all of the pending claims.

5

In the event the Examiner wishes to discuss any aspect of this response, or believes that a conversation with either the Applicants or Applicants' representative would be beneficial the Examiner is encouraged to contact the undersigned at the telephone number indicated below.

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The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to the attached credit card form or deposit account no. 50-2691. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed. The petition fee due in connection therewith may be charged to the attached credit card form or deposit account no. 50-2691.

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Respectfully submitted,  
TOPE-MCKAY & ASSOCIATES



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